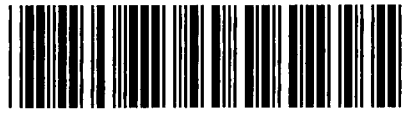




Control Number: 51415



Item Number: 448

Addendum StartPage: 0



**SOAH DOCKET NO. 473-21-0538
PUC DOCKET NO. 51415**

**APPLICATION OF SOUTHWESTERN § BEFORE THE STATE OFFICE
ELECTRIC POWER COMPANY FOR § OF
AUTHORITY TO CHANGE RATES § ADMINISTRATIVE HEARINGS**

**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO TEXAS
INDUSTRIAL ENERGY CONSUMERS' THIRTEENTH SET OF REQUEST FOR
INFORMATION**

MAY 6, 2021

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Question No. TIEC 13-1:

The following questions refer to the Rebuttal Testimony of Charles Locke:

Please refer to SWEPCO's response to TIEC-5-3. Please state whether SWEPCO's response to each of the 5 subparts properly reflects Mr. Locke's understanding of the proper treatment of the identified customer in SWEPCO's reporting of monthly peak load data to SPP. If the answer for any subpart is anything other than an unequivocal Yes, please explain why in detail and state for each subpart the amount that Mr. Locke believes SWEPCO should report in its monthly peak load data.

Response No. TIEC 13-1:

Mr. Locke's answer follows SWEPCO's answer for each subpart as follows:

- a. SWEPCO's answer: 0 MW for this customer.
Mr. Locke's answer: 0 MW should be included in Network Load.
- b. SWEPCO's answer: 10 MW for this customer.
Mr. Locke's answer: 10 MW should be included in Network Load.
- c. SWEPCO answer: 50 MW if the behind the meter generator was serving that load at the time of the peak.
Mr. Locke's answer: 50 MW should be included in Network Load if the behind-the-meter generator was serving 50 MW in the hour of the peak.
- d. SWEPCO's answer: 50 MW if the behind the meter generator was serving that load at the time of the peak.
Mr. Locke's answer: 50 MW should be included in Network Load if the behind-the-meter generator was serving 50 MW in the hour of the peak and assuming that the facility associated with the 50 MW load is at any time electrically connected to the Network Customer's Point of Delivery.
- e. SWEPCO answer: 10 kW because SWEPCO has not made any adjustments for such loads in its reporting to SPP at this time
Mr. Locke's answer: 20 kW should be included in Network Load because that is the customer's total load in the hour of the peak.

Prepared By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

Sponsored By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

**SOAH DOCKET NO. 473-21-0538
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**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO TEXAS
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Question No. TIEC 13-2:

Please provide all responses to the 2017 and 2019 surveys identified on page 22 of Mr. Locke's testimony.

Response No. TIEC 13-2:

The Company has filed an objection to this question.

Prepared By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

Sponsored By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

**SOAH DOCKET NO. 473-21-0538
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**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO TEXAS
INDUSTRIAL ENERGY CONSUMERS' THIRTEENTH SET OF REQUESTS FOR
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Question No. TIEC 13-3:

Referring to page 23, lines 2-5 of Mr. Locke's testimony, please provide all such "educational information" that SPP provided to its stakeholders.

Response No. TIEC 13-3:

SPP made the following presentations to SPP stakeholders:

- October 13, 2016 SPP Strategic Planning Committee presentation
- March 28, 2018 – Markets and Operations Policy Committee ("MOPC") Presentation
- April 11, 2018 – MOPC Presentation
- October 15-16, 2019 – MOPC Presentation
- January 11 –12, 2021 MOPC Presentation

See TIEC 13-3 Attachments 1-5 for the referenced presentations.

Prepared By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

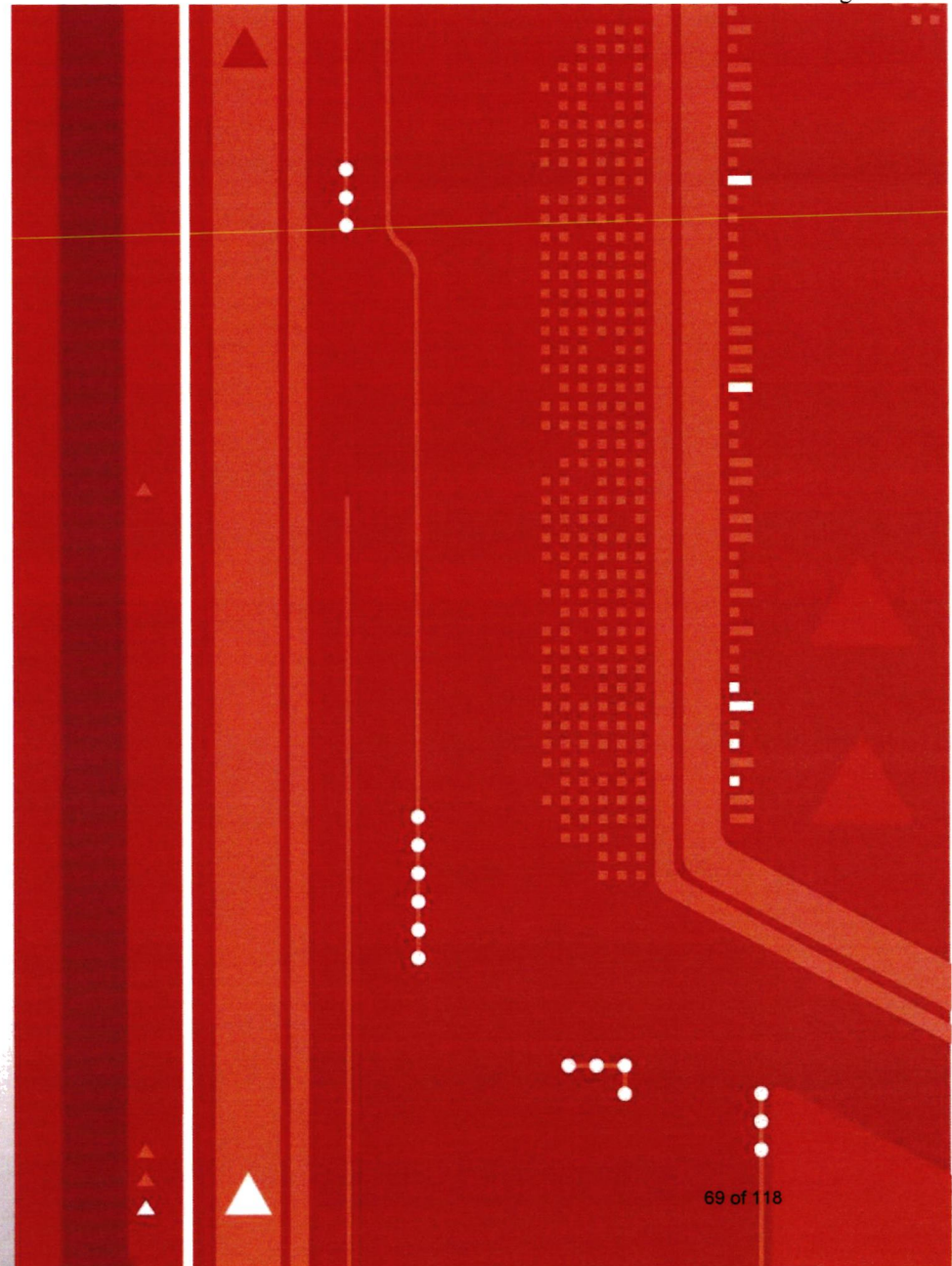
Sponsored By: Charles J. Locke

Title: SPP, Dir Transmission Policy & Rates

Network Load and Behind the Meter Generation Update



Helping our members
work together to
keep the lights on...
today and in the future



Procedural Background

- **MOPC created Action Item 239 in July 2014.**
“Develop a Business Practice for Behind-the-Meter-Generation based on input from BDTF”
- **BDTF approved RR 158 Determination of Network Load on February 19, 2016**
- **RR158 was taken to the BPWG for review, but they deferred action until after RTWG reviewed and approved**
- **RR 158 was discussed by the RTWG at its May and June meetings.**
- **At its June 23, 2016 meeting, the RTWG remanded back to the BDTF with directions for revisions and possible simplification.**

Procedural Background

- The RTWG also asked the BDTF to incorporate in RR158 proposed language to address a companion issue raised by SPP with regard to responsibility of reporting Network Load
- Staff is working on draft language to simplify language on Determination of Network Load and to add language with respect to responsibility for reporting Network Load.
- BDTF has a meeting scheduled October 19, 2016.

FERC Precedent

- **Florida Municipal Power Agency vs. Florida P&L, 67 FERC ¶ 61,167 (1994)**

“[Native load] incorporates [transmission customer's] load as though that load were part of [host utilities'] native load. Because the transmission system to support this hypothetical melding of customers must be designed and operated—and fixed costs must be incurred—to meet the combined loads of [host utility] and [transmission customer], it makes sense that each would pay based on its contribution to the system loads to be served by the transmission network. The costs of the system will not vary as a function of the maximum flows imposed by [transmission customer] in a given year. They will vary based on the loads to be served.” See order at ¶ ¶ 61,481-61,482.

FMPPA vs. FP&L (cont.)

- Florida Municipal Power Agency vs. Florida P&L, 67 FERC ¶ 61,167 (1994)

“Since [host utility] must plan its transmission system to meet load, not based on [transmission customer's] actual hourly or yearly demands, its compensation for the network transmission service should not be driven by [transmission customer's] hourly economic dispatch decisions... if [transmission customer] wants to be able to use the transmission system exactly as freely as does [host utility], it must pay a rate that reflects that equality. It must share the costs of the system on the same basis as does [host utility]—on the basis of its load.” See order at ¶ 61,482.

FMPPA vs. FP&L (cont.)

- FMPPA argues that Florida Power's local resources should be treated differently because all are connected to the grid, while FMPPA's generating units can meet local loads without first entering the Florida Power grid. This is not a meaningful distinction...[if] FMPPA has a load and resource that it does not want to integrate, it can isolate the load and resource from Florida Power's transmission system and eliminate it from the request for full integration. See order at fn. 77.

Order 888 (1996)

- “Network service permits a transmission customer to integrate and economically dispatch its resources to serve its load in a manner comparable to the way that the transmission provider uses the transmission system to integrate its generating resources to serve its native load. Because network service is load based, it is reasonable to allocate costs on the basis of load for purposes of pricing network service.”
- “As to the concerns raised...about pancaked rates for network service provided to load served by more than one network service provider, we have stated that if a customer wishes to exclude a particular load at discrete points of delivery from its load ratio share of the allocated cost of the transmission provider's integrated system, it may do so. Customers that elect to do so, however, must seek alternative transmission service for any such load that has not been designated as network load for network service. *This option is also available to customers with load served by "behind the meter" generation that seek to eliminate the load from their network load ratio calculation.*”

Order 890 and 890-A (2007)

- From 890-A at PP 965, 970. “[In Order 890] [t]he Commission declined to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs, stating that commenters had not provided any different arguments not fully addressed in Order No. 888.”
 - *Pro forma* OATT allows TCs to exclude entirety of discrete load from network service and serve load with behind-the-meter generation
 - Transmission customers must evaluate financial advantages and risks and choose either to use NITS or PTP to serve load
 - **Commission would continue to review alternative proposals for behind-the-meter generation on case by case basis**

SPP Tariff Definition- Order 890 *pro forma*

- **Network Load:** The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

Parameters of Network Load

- Network Customer's Network Load:
 - Includes all load served by the output of any Network Resources designated by the Network Customer.
 - May elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery.
 - Where not designating a particular load at discrete points of delivery as Network Load, Customer must obtain Point-To-Point Transmission Service that may be necessary for such non-designated load.
 - No exceptions for Internal Generation “Behind the Meter”, GFAs or PURPA units

Current Options under SPP Tariff

- 1) Serve all load with Network Service
 - Irrespective of PTP or GFA

- 2) Take PTP for all load required for supplemental transmission service
 - Service over and above GFA, other PTP, etc.

- 3) Split Load
 - Group 1- Network Service with designated load and resources
 - Group 2- Non-Network Service

Summary

- **FERC precedent is that Behind the Meter (BTM) Generation has Network Service or PTP available for use of host utility's transmission lines**
- **Network Service rates are based on load**
- **SPP currently treats BTM Generation consistent with FERC precedent**
- **Other RTOs are similar in treatment of BTM Generation**
- **The Commission will review different proposals for BTM Generation on a case-by-case basis**

Goals of BDTF

- **Develop a solution to address Behind-the-Meter (BTM) generation in reporting of Network Load that recognizes FERC precedent and balances that with the administrative feasibility and economics of tracking and metering some BTM generation (rooftop solar is an example)**
- **Draft a business practice that provides clarity and consistency with respect to what load must be included in Network Load under the SPP Tariff.**

RR 158 Determination of Network Load

- The proposed Business Practice provides the following:
 - 1) Network Load includes all load designated for Network Service, including all load served at each discrete point of delivery in the Network Service Agreement (NITSA)
 - 2) Network Load includes the sum of metered values of generators behind the delivery point meter:
 - a) Any Designated Resource, generator owned by the Network Customer, or whose output (including PURPA QFs) is purchased by the Network Customer
 - b) Any generator registered in the Integrated Marketplace;
 - c) Any generator or combination of generators totaling 1 MW or greater in size connected on load side of discrete delivery point

RR 158 Determination of Network Load

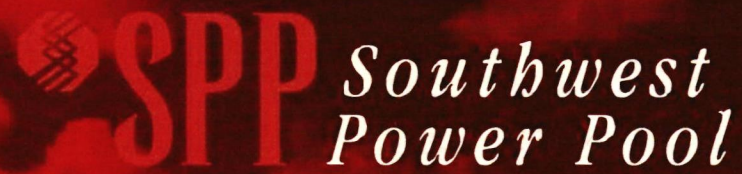
- **The proposed Business Practice provides the following: (cont.)**
 - 3) **Network Load does not includes the capacity of**
 - a) **A generator of an individual retail customer where the output of such generator is owned by the retail customer and is intended to be consumed by that retail customer**
 - b) **A generator of a Network Customer that is run less than 50 hours per year and is generally used for backup, emergency, or black-start purposes by the Network Customer**
 - 4) **If the actual meter data of a generator is not available during times when the generator was online, the Network Customer shall use the nameplate rating of the generator in calculating the Network Load at the discrete delivery point**

Summary of Issues/Questions

- **The comments filed on RR158 and the discussion at the BDTF and RTWG raised multiple issues:**
 - 1) Should any language dealing with determination of Network Load be in a business practice or in the Tariff?
 - 2) If there is a threshold level for inclusion of BTM generation at a discrete delivery point in Network Load, what is the appropriate threshold?
 - a) Does the threshold provide entities with more delivery points an advantage?
 - b) Positions on the threshold ranged from 150kW to 10 MW.
 - 3) Which section, the exclusions or the inclusions, rules over the other?
 - 4) Are all retail generators excluded or just BTM retail generators? Should retail generators be excluded at all?
 - 5) Does exclusion of backup, emergency or black-start generators encourage use of those resources for peak-shaving? Should frequency response be included in this exclusion?

Next Steps

- **The BDTF has a meeting scheduled on October 19th**
- **Items for discussion:**
 - 1) Revision and simplification of language in inclusions and exclusions
 - 2) Clarification that you only look at the exclusions if you already met the rules for inclusion. If you don't meet the inclusion rules you don't have to worry about the exclusion rules.
 - 3) Further discussion of appropriate threshold
 - 4) How to incorporate Network Load Reporting issue
 - 5) In what governing document should language on determination and reporting of Network Load reside?
- **Try to reach consensus at BDTF on revisions to move RR158 back to RTWG**



HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE.



Network Load Reporting

March 28, 2018

Purpose of Presentation

- Review of current requirements for reporting of Network Load
 - Focus on Behind-the-Meter Generation (BTMG) requirements
- Discussion of results from the survey of Network Load reporting in SPP

Tariff Provisions

FERC Pro Forma Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where a Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

SPP

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SPP Tariff Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

SPP Tariff Definition of Resident Load for Schedule 11 Billing - Section 41(b) only

(b) Transmission Owners providing transmission service to: (i) bundled retail load for which such Transmission Owners are not taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service under the Tariff; and (ii) load being served under Grandfathered Agreements for which such Transmission Owners are not taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service under the Tariff. . .

Losses in Network Service Load - SPP Tariff Attachment M, Sec. II(a)

The Network Customer shall be responsible for real power losses associated with Network Integration Transmission Service to its Network Load for each Zone in which its Network Load is located for the purposes of determining charges under Schedule 9 and Schedule 11 to this Tariff. The Network Customer's loss responsibility . . . shall be included when calculating that Network Customer's Load Ratio Share, Base Plan Zonal Load Ratio Share and Region-wide Load Ratio Share.

FERC Orders

FERC Order in FMPA v. FP&L - Docket Nos. TX93-4 & EL93-51

Page 23: FMPA argues that Florida Power's local resources should be treated differently because all are connected to the grid, while FMPA's generating units can meet local loads without first entering the Florida Power grid. This is not a meaningful distinction. . . If FMPA has a load and resource that it does not want to integrate, it can isolate the load and resource from Florida Power's transmission system and eliminate it from the request for full integration

Order 888

Page 297: . . . if a customer wishes to exclude a particular load at discrete points of delivery from its load ratio share of the allocated cost of the transmission provider's integrated system, it may do so. Customers that elect to do so, however, must seek alternative transmission service for any such load that has not been designated as network load for network service. This option is also available to customers with load served by "behind the meter" generation that seek to eliminate the load from their network load ratio calculation.

Order 888-A

Page 245: . . . the Commission will allow a network customer to exclude the entirety of a discrete load from network load, but not just a portion of the load served by generation behind the meter.

Page 247: Quite simply, a load at a discrete point of delivery cannot be partially integrated – it is either fully integrated or not integrated.

Order in Occidental Complaint against PJM - Docket No. EL02-121

PJM's practice of adding back the amount of load reduction during curtailment was rejected by FERC:

¶ 27: . . . the Commission found that PJM's practice of adding back curtailed load to its calculation appeared inconsistent with the underlying rationale of reducing a customer's costs when it reduces load during system peaks. The October 10 Order further noted that relying on curtailed loads to allocate PJM's access charge costs may create a disincentive for load serving entities (LSEs) to implement load response programs on their own systems, since LSEs would be charged for system costs regardless of whether they curtail load during system peaks.

Order 890

- ¶ 1619: The Commission is not persuaded to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs . . . We believe it is most appropriate to continue to review alternative transmission provider proposals for behind the meter generation treatment on a case-by-case basis, as the Commission did in the PJM proceeding cited by the commenters.

Order 890-A

¶ 965: The Commission declined to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs, stating that commenters had not provided any different arguments not fully addressed in Order No. 888. . . The Commission concluded it is most appropriate to continue to review alternative transmission provider proposals for behind the meter generation treatment on a case-by-case basis.

Order 890-B

¶ 216: In Order No. 890-A, the Commission reiterated that the pro forma OATT permits transmission customers to exclude the entirety of a discrete load from network service and serve such load with the customer's behind the meter generation and through any needed point-to-point service, thereby reducing the network customer's load ratio share. In other situations, use of point-to-point service by network customers is in addition to network service and, therefore, does not serve to reduce their network load . . .

Order in Ameren Complaint against Prairieland – Docket No. EL09-69

¶ 27: Prairieland failed to comply with the Tariff by not designating its total load as Network Load . . . Prairieland had the responsibility under its Service Agreement and the Tariff to designate the necessary behind-the-meter generation when taking Network Service. As the Commission has explained in Order Nos. 888 and 890, the responsibility for load served by behind-the-meter generation is with the transmission customer

Summary of Network Load Reporting Requirements

For network service at a discrete delivery point, SPP understands FERC's general policy as requiring all actual load to be reported

Since only actual load is to be counted, there should be no add-back of load that has been reduced by utility curtailment or interruption

The load is to reflect adjustment for losses across the transmission system in accordance with the SPP Tariff

Summary of Network Load Reporting Requirements

A customer can have discrete delivery points, some of which are served by network service (100%) and others of which are served by either point-to-point or a combination of point-to-point and BTMG

For a discrete delivery point under network service, SPP has identified no generally applicable exemptions for partial load served by:

- Behind-the-Meter Generation
- Point-to-point service

Does FERC Allow Exceptions?

Yes. Exceptions to the general requirements have been approved by FERC when requested and justified on a case-by-case basis

Order 890-A

¶ 970: . . . Any alternative transmission provider proposals for behind the meter generation treatment will be reviewed on a case-by-case basis.

PJM's Policy for BTMG

In Docket No. ER04-608, FERC conditionally accepted PJM's proposal to allow netting of load that is served by BTMG at the same electrical location as the load.

- The transmission and distribution systems would not be utilized by such BTMG
- This change allowed for netting of BTMG for retail load

In Docket Nos. ER04-608 and EL05-127, FERC accepted PJM's proposal to expand the netting program to include a limited amount of non-retail BTMG serving load without using the transmission system

PJM's Current Definition of BTMG

“Behind The Meter Generation” shall refer to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit’s capacity that is designated as a Generation capacity Resource; or (ii) in an hour, any portion of the output of such generating unit[s] that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

California ISO Stakeholder Process

The Transmission Access Charge (TAC) “is currently assessed at end use customer meters on gross load” and is an energy-based (MWh) charge rather than a peak demand charge

In recent months, CAISO has been undertaking a review of the TAC rate structure with its stakeholders and is considering multiple alternatives

MISO Stakeholder Process

In recent months, the Planning Advisory Committee has been discussing and gathering stakeholder comments regarding treatment of BTMG in network load reporting

MISO staff's presentation at the March 14 PAC meeting included a proposed schedule to finalize Tariff language regarding BTMG in October 2018

Results of the Load Reporting Survey Requested by MOPC

Network Customer Outreach

- Original Survey sent to 62 Transmission Customers with Network Load
- Intended to gain understanding of footprint reporting practices for MOPC discussion
- Asked about Grandfathered Loads and MW Behind-the-Meter with regard to Network Loads reported for Transmission billing
- Some follow-up questions were sent to gain clarity on answers given
 - All surveys have been returned
- Recently, a 2nd survey specific to MW behind the retail meter was sent to the same audience
 - Half have been returned

Grandfathered Loads

- Most responses showed no “non-standard” treatment, with GFA MW included in Resident Load
- Reported exceptions:
 - “GFA load not Resident Load due to “Load is pseudo-tied to XXXX who is also the power Supplier” or “Load is Pseudo-Tied to XXXX ” - creating dependency that each respective Zone is reporting those loads in Resident Load.
 - “The full reservation is used as the CP, not the actual schedule”
 - GFA loads don’t count toward Resident Load due to either “sinking in another Zone”, or “being associated with another TSR that’s paying Schedule 11”
 - Some “...relate to PTP transactions that sink in a different transmission pricing zone within SPP, and are therefore, excluded in determining...Schedule 11 charges pursuant to Section 41(b) of the SPP tariff.”

Grandfathered Loads – Discussion Points

- What would exempt GFA from a Resident Load amount?
 - Pseudo-Tied to another Zone?
 - GFA Sinking in another Zone or exiting the region?
 - SPP PTP in the continuous transmission path of the GFA?
 - Other?
- What MW to report?
 - Reserved amount vs. Schedule amount

Behind-The-Meter (BTM) MW

- Multiple responses showed “non-standard” treatment, with BTM MW not being included in Network Load amounts
- Reported exceptions:
 - “At this time, we are not adding in generation consumed behind a [retail meter](#).”
 - “XX has interpreted the combination of btmg registration requirements in SPP Protocols 6 and in OATT Attachment AE, Section 2.2(6), and the definition of Network Load in NITSA Section 2.0 and in OATT 34.4 to be such that small (loads)...are [netted against Network Load](#).”
 - “XX is netted against Network Load, but is behind a retail meter [and should be ignored no matter what](#).”
 - “We do not add the solar farm gen into our peak because it’s a BTM, unregistered, and [undispatchable resource](#). In real time when it operates, it will reduce our SPP load by its output, and it also reduces our reported NITS one-hour peak load by the solar farm output. We use the same number for both the monthly number and the PYCP. We only add the solar farm generation back in when reporting our total load for the month on the Net Energy for Load form, and also in the Resource Adequacy Workbook.”

Behind-The-Meter (BTM) MW

- Reported exceptions continued:
 - “This unit is not registered in the Marketplace because of the aforementioned [inability to feed into the transmission system\(s\)](#). This unit is strictly used for two purposes: offset usage and allow for emergency load support during outages.”
 - “However, the BTM generators that are not registered with the market do [reduce down the load](#) before it is reported. “
 - “XX does not currently include [end-use customer-owned generation](#) that is behind the retail meter in the TC NITS Load calculation.”
 - “With regards to NITS, no, we do not currently add BTM generation to our reported NITS load, per our [internal interpretation](#) of “BTM”.”
 - “All behind the Meter Gen if running at the peak is included in NITS reporting. An exception to this is [retail customers that have generation behind the retail meter](#). We have no way of metering solar panels for example behind retail meters.”
 - “[Awaiting final determination](#) and establishment of rules/guidance from SPP”

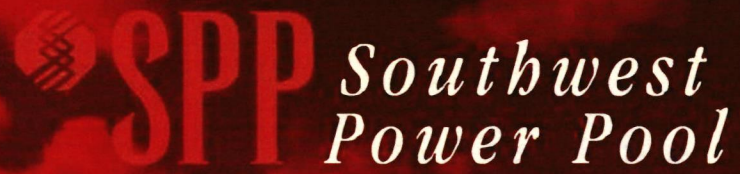
Behind-The-Meter (BTM) MW

- Reported exceptions continued:
 - “All BTM generation is netted against NITS Load.”
 - “...XX references SPP's ongoing discussion about 1MW threshold - looking for agreed upon guidance.”
 - “XX and the XX have numerous small backup generators at our plants, control centers and microwave sites. These backup generators are never synchronized to the power system so we did not include them in our response.”

Behind-The-Meter – Discussion Points

- What would exempt BTM MW from a Network Load amount?
 - Behind the retail meter vs. wholesale meter?
 - Generator not synchronized to the Transmission System?
 - BTM MW < X MW?
 - Can BTM MW net against Network Load reported?
 - Does market registration affect whether the generation is reported?
- Different Treatment for:
 - Transmission Billing
 - Resource Adequacy / Planning
 - Integrated Marketplace Billing

DISCUSSION



HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE.



Network Load Reporting Requirements

April 11, 2018

Tariff Provisions

FERC Pro Forma Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where a Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

SPP

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SPP Tariff Definition of Network Load

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but **may not designate only part of the load at a discrete Point of Delivery**. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

Grandfathered Agreements

Schedule 9 – Zonal Network Charges

- Treatment of grandfathered agreement revenues and loads is case-specific
- Attachment L, Sections II.A and II.B.2 contain applicable provisions

Schedule 11 – Base Plan Zonal and Region-wide Charges

- Grandfathered agreement load is to be included in Base Plan network charges in accordance with Section 41

SPP Tariff Definition of Resident Load for Schedule 11 Billing - Section 41(b) excerpt

(b) Transmission Owners providing transmission service to . . . (ii) load being served under Grandfathered Agreements for which such Transmission Owners are not taking Network Integration Transmission Service or Firm Point-To-Point Transmission Service under the Tariff. . .

SPP Tariff Definition of Resident Load for Schedule 11 Billing - Section 41(b) continued

... Load being served under Grandfathered Agreements shall be treated as Resident Load **only in the Zone of the Point of Delivery or the point of exit from the SPP Region**, as applicable, and shall not be treated as Resident Load if its continuous transmission path includes one or more segments with Firm Point-To-Point Transmission Service under this Tariff.

Losses in Network Service Load - SPP Tariff Attachment M, Sec. II(a)

The Network Customer shall be responsible for real power losses associated with Network Integration Transmission Service to its Network Load for each Zone in which its Network Load is located for the purposes of determining charges under Schedule 9 and Schedule 11 to this Tariff. The Network Customer's loss responsibility . . . shall be included when calculating that Network Customer's Load Ratio Share, Base Plan Zonal Load Ratio Share and Region-wide Load Ratio Share.

FERC Orders

FERC Order in FMPPA v. FP&L - Docket Nos. TX93-4 & EL93-51

Page 23: FMPPA argues that Florida Power's local resources should be treated differently because all are connected to the grid, while FMPPA's generating units can meet local loads without first entering the Florida Power grid. This is not a meaningful distinction. . . If FMPPA has a load and resource that it does not want to integrate, it can isolate the load and resource from Florida Power's transmission system and eliminate it from the request for full integration

Order 888

Page 297: . . . if a customer wishes to exclude a particular load at discrete points of delivery from its load ratio share of the allocated cost of the transmission provider's integrated system, it may do so. Customers that elect to do so, however, must seek alternative transmission service for any such load that has not been designated as network load for network service. This option is also available to customers with load served by "behind the meter" generation that seek to eliminate the load from their network load ratio calculation.

Order 888-A

Page 245: . . . the Commission will allow a network customer to exclude the entirety of a discrete load from network load, but not just a portion of the load served by generation behind the meter.

Page 247: Quite simply, a load at a discrete point of delivery cannot be partially integrated – it is either fully integrated or not integrated.

Order in Occidental Complaint against PJM - Docket No. EL02-121

PJM's practice of adding back the amount of load reduction during curtailment was rejected by FERC:

¶ 27: . . . the Commission found that PJM's practice of adding back curtailed load to its calculation appeared inconsistent with the underlying rationale of reducing a customer's costs when it reduces load during system peaks. The October 10 Order further noted that relying on curtailed loads to allocate PJM's access charge costs may create a disincentive for load serving entities (LSEs) to implement load response programs on their own systems, since LSEs would be charged for system costs regardless of whether they curtail load during system peaks.

SPP

14

Order 890

- ¶ 1619: The Commission is not persuaded to require transmission providers to allow netting of behind the meter generation against transmission service charges to the extent customers do not rely on the transmission system to meet their energy needs . . . We believe it is most appropriate to continue to review alternative transmission provider proposals for behind the meter generation treatment on a case-by-case basis, as the Commission did in the PJM proceeding cited by the commenters.

Order 890-B

¶ 216: In Order No. 890-A, the Commission reiterated that the pro forma OATT permits transmission customers to **exclude the entirety of a discrete load from network service and serve such load with the customer's behind the meter generation and through any needed point-to-point service**, thereby reducing the network customer's load ratio share. In other situations, use of point-to-point service by network customers is in addition to network service and, therefore, does not serve to reduce their network load . . .

Order in Ameren Complaint against Prairieland – Docket No. EL09-69

¶ 27: Prairieland failed to comply with the Tariff by not designating its total load as Network Load . . . Prairieland had the responsibility under its Service Agreement and the Tariff to designate the necessary behind-the-meter generation when taking Network Service. As the Commission has explained in Order Nos. 888 and 890, the responsibility for load served by behind-the-meter generation is with the transmission customer

Summary of Network Load Reporting Requirements

For network service at a discrete delivery point, SPP understands FERC's general policy as requiring all actual load to be reported

Since only actual load is to be counted, there should be no add-back of load that has been reduced by utility curtailment or interruption

The load is to reflect adjustment for losses across the transmission system in accordance with the SPP Tariff

Summary of Network Load Reporting Requirements

A customer can have discrete delivery points, some of which are served by network service (100%) and others of which are served by either point-to-point or a combination of point-to-point and behind-the-meter generation (BTMG)

For a discrete delivery point under network service, SPP has identified no generally applicable exemptions for partial load served by:

- Behind-the-meter generation
- Point-to-point service

Does FERC Allow Exceptions?

Yes. Exceptions to the general requirements have been approved by FERC when requested and justified on a case-by-case basis

Order 890-A

¶ 970: ... Any alternative transmission provider proposals for behind the meter generation treatment will be reviewed on a case-by-case basis.

PJM's Policy for BTMG

In Docket No. ER04-608, FERC conditionally accepted PJM's proposal to allow netting of load that is served by BTMG at the same electrical location as the load.

- The transmission and distribution systems would not be utilized by such BTMG
- This change allowed for netting of BTMG for retail load

In Docket Nos. ER04-608 and EL05-127, FERC accepted PJM's proposal to expand the netting program to include a limited amount of non-retail BTMG serving load without using the transmission system

PJM's Current Definition of BTMG

“Behind The Meter Generation” shall refer to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit’s capacity that is designated as a Generation capacity Resource; or (ii) in an hour, any portion of the output of such generating unit[s] that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

California ISO Stakeholder Process

The Transmission Access Charge (TAC) “is currently assessed at end use customer meters on gross load” and is an energy-based (MWh) charge rather than a peak demand charge

In recent months, CAISO has been undertaking a review of the TAC rate structure with its stakeholders and is considering multiple alternatives

MISO Stakeholder Process

In recent months, the Planning Advisory Committee has been discussing and gathering stakeholder comments regarding treatment of BTMG in network load reporting

MISO staff's presentation at the March 14 PAC meeting included a proposed schedule to finalize Tariff language regarding BTMG in October 2018

DISCUSSION



MOPC POLICY SURVEY: BEHIND-THE-METER GENERATION

MARKET & OPERATIONS POLICY COMMITTEE

OCTOBER 15-16, 2019

*Helping our members work together to keep
the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

INTRODUCTION

- At the July MOPC meeting Carl Monroe re-started a discussion regarding the treatment of behind-the-meter generation in reporting of Network Load, because different thoughts on what should and should not be netted in reporting Network Load related to behind-the-meter generation.
- Carl suggested that SPP Staff survey stakeholders about opinions on what should be the policies and practices regarding treatment of behind-the-meter generation in reporting of Network Load, not necessarily what is currently in place.
- This survey is an effort to:
 - develop consensus on policies and direction regarding reporting of load
 - clarify reporting language, including tariff and business practice revisions, if necessary
 - ensure reporting consistency through education and outreach

“NET” VS “GROSS” LOAD REPORTING

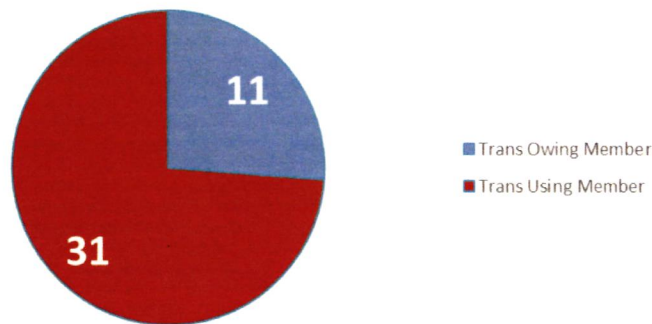
- Load as metered at a delivery point is “net of” (i.e., reduced by) the output of any generation behind (i.e., on the load side of) the meter at the delivery point.
- Thus, to determine the “gross” Network Load at a delivery point, the output of any behind-the-meter generation would need to be added to metered load at that delivery point.
- Stated another way, metered load at the delivery point must be grossed up by the output of the behind-the-meter generation to determine the delivery point’s Network Load.

THE SURVEY ADDRESSED RETAIL VS WHOLESALE BTMG AND OTHER BTMG SCENARIOS

- Survey questions were tailored to specifically identify potential policy distinctions between generation that is between wholesale and retail meters and generation that is behind a retail meter.
- Additional variables addressed with regard to retail-versus-wholesale scenarios include:
 - Network Resource designation, Integrated Marketplace (IM) Resource registration, PURPA QF status, type of generation and/or fuel used, size (MW) of the generation and its aggregate level (MW) of generation at a delivery point, length of use, if and when generator is synchronized, lost generation/lost load and lost load/lost generation scenarios, generator ownership, dispatch control, customer type, interconnection agreements, retail customer-generator tariffs, electrical location

RESPONSES RECEIVED FROM 42 SEPARATE ENTITIES¹

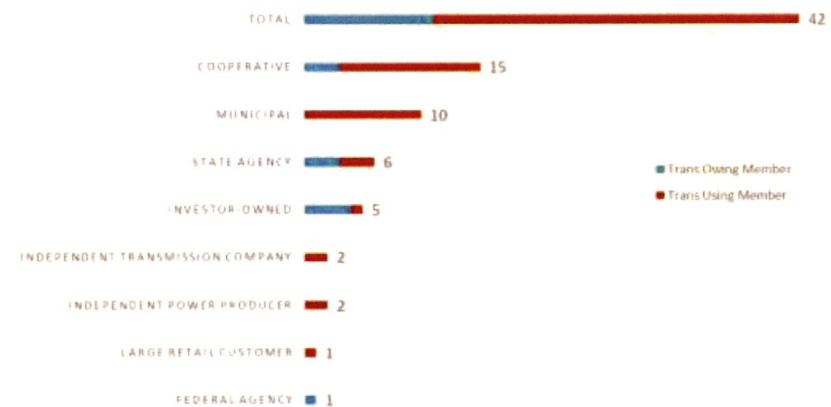
RESPONDENTS



1. Surveys were sent to all MOPC members, but entities with multiple affiliates (AEP, Evergy, etc.) submitted a single response for all affiliates

- Responses from:
 - 11 Transmission-Owning Members
 - 31 Transmission-Using Members
- Responses from most entity types

RESPONDENTS



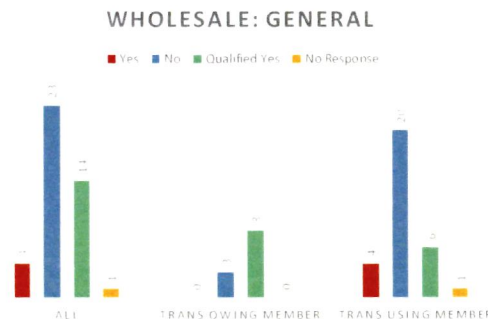
HIGH-LEVEL TAKEAWAY RETAIL VS WHOLESALE BTMG NETTING

Retail: General	
For the purposes of reporting Network Load, should retail behind-the-meter generation be netted? In other words, should behind-the-meter generation be exempt from being added back to metered load?	
5	Yes. Netting of all generation behind the retail meter should be allowed regardless of other circumstances.
12	No. All load should be reported as gross (i.e. no netting of "any" behind-the-meter generation, including behind the retail meter).
25	Qualified Yes. Netting should be allowed under some circumstances (further detailed in responses to questions below)
0	No Response

Wholesale: General	
Should wholesale behind-the-meter generation be netted for the purposes of reporting Network Load? In other words, should wholesale behind-the-meter generation be exempted from being added back to the metered load?	
4	Yes. All generation behind the wholesale meter should be netted regardless of any other circumstances.
23	No. All load should be reported as gross (i.e. no netting of any wholesale behind-the-meter generation).
14	Qualified yes. Netting should be allowed under some circumstances (further detailed in responses to questions below).
1	No Response

- There appears to be interest in allowed netting for generation behind the retail meter under certain circumstances

- There is far less interest in netting for generation behind a wholesale meter but in front of a retail meter



HIGH-LEVEL TAKEAWAYS OTHER RELEVANT CIRCUMSTANCES

- Many respondents feel that Designated Resources and generators registered in the Integrated Marketplace are utilizing the Transmission System and should not be netted
 - Others, however, are concerned about possible discrimination and/or disincentives for resource designation and market registration
- Many respondents indicated a willingness to allow netting of BTMG generators below a “de minimis” size (kW or MW) threshold
 - The definition of “de minimis”, however, varies among respondents
 - There is less consensus on how netting should be allowed on an aggregate level
- Many respondents feel that netting should be allowed in situations when load is lost if the generator is lost or conversely when the generator is lost when the load is lost
- Most respondents feel that “if” netting is allowed it should be restricted to load at the same location as the generator

HIGH-LEVEL TAKEAWAYS OTHER CIRCUMSTANCES (CONT.)

- For the most part, responses seemed to indicate that the following variables/circumstances should not determine whether or not netting should be allowed:
 - PURPA QF status
 - Type of generation and/or fuel used
 - Length of use
 - If and when generator is synchronized
 - Generator ownership
 - Dispatch control
 - Customer type
 - Interconnection agreements
 - Retail customer-generator tariffs

OTHER BTMG-RELATED POLICY ISSUES

- **Off-Peak Usage**
 - Responses were split on whether off-peak usage is a concern if netting is allowed
- **Peak Reporting for Other Purposes**
 - Most respondents were unconcerned about differences between peak-usage reporting for different purposes/functions under the SPP tariff as long as the relevant load needed for each purpose can be determined and is reported consistently for that purpose.
- **Acceptable Level of Transmission System Usage**
 - Responses were split on whether or not there is de minimis acceptable level of potential transmission system usage related to BTMG (i.e., pushing onto the transmission system from over-generation or leaning on the transmission system if the generation is offline)
- **Reporting Requirement for Netted Generation**
 - Most respondents indicated that, if some BTMG is allowed to be netted, there should be a reporting requirement concerning the amounts being netted.

NEXT STEPS

- SPP will continue to review stakeholder policy comments and will work with stakeholders to clarify their policy positions
- If, after further review and stakeholder input, there is a consensus for some allowed netting of BTMG, SPP will propose a Revision Request to “clarify” Network Load calculation and reporting

SUMMARY OF SURVEY RESPONSES

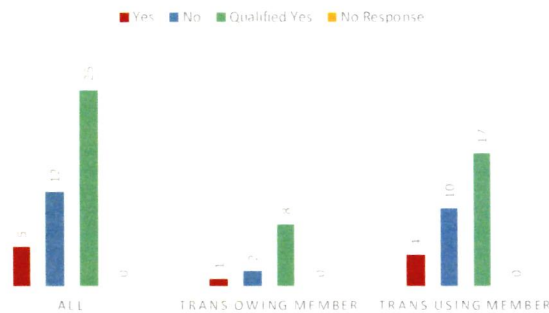
THE FOLLOWING SLIDES SHOW THE SIDE-BY-SIDE
RETAIL & WHOLESALE SURVEY RESULTS FOR THE
VARIOUS CIRCUMSTANCES

RETAIL & WHOLESALE GENERAL

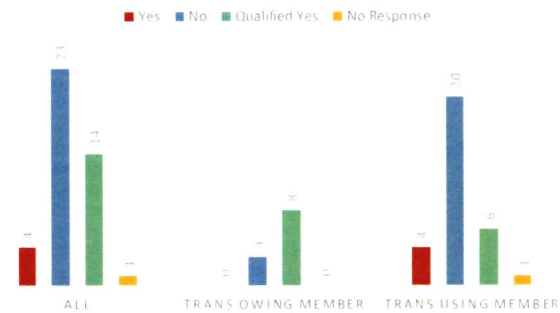
Retail: General	
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25	Qualified Yes. Netting should be allowed under some circumstances (further detailed in responses to questions below)
0	No Response

Wholesale: General	
Should wholesale behind-the-meter generation be netted for the purposes of reporting Network Load? In other words, should wholesale behind-the-meter generation be exempted from being added back to the metered load?	
4	Yes. All generation behind the wholesale meter should be netted regardless of any other circumstances.
23	No. All load should be reported as gross (i.e. no netting of any wholesale behind-the-meter generation).
14	Qualified yes. Netting should be allowed under some circumstances (further detailed in responses to questions below).
1	No Response

RETAIL: GENERAL



WHOLESALE: GENERAL

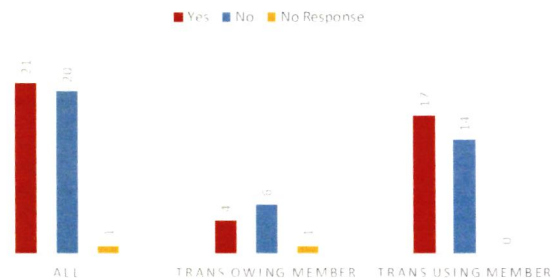


RETAIL & WHOLESALE NETWORK RESOURCE DESIGNATION

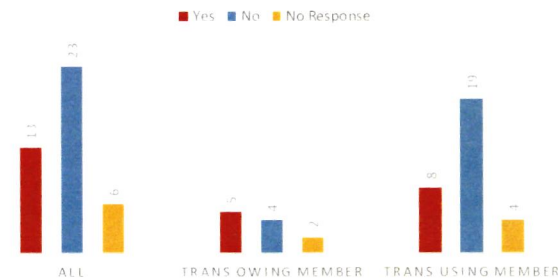
Retail: Network Resource Designation	
Should Network Resource designation determine whether retail behind-the-meter generation is netted for the purpose of reporting Network Load?	
21	Yes. A Network Resource should be added back and included in network load even if it is behind the retail meter.
20	No. Network Resource designation should not determine whether netting is allowed.
1	No Response

Wholesale: Network Resource Designation	
Should Network Resource designation determine whether wholesale behind-the-meter generation is netted for the purpose of reporting Network Load?	
13	Yes. A Network Resource should be added back and included in Network Load even if it is behind the wholesale meter.
23	No. Network Resource should not determine whether netting is allowed.
6	No Response

RETAIL: NETWORK RESOURCE
DESIGNATION



WHOLESALE: NETWORK RESOURCE
DESIGNATION

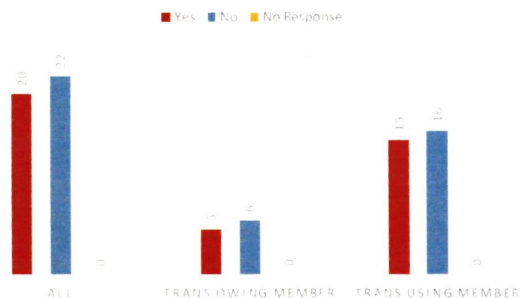


RETAIL & WHOLESALE MARKET REGISTRATION

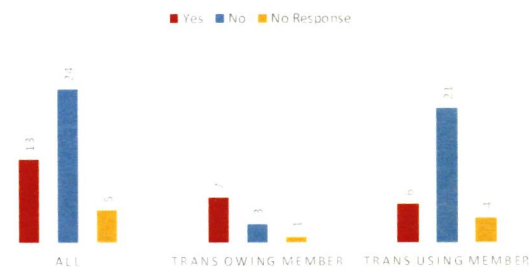
Retail: Market Registration	
Should Integrated Marketplace (IM) Resource registration determine whether retail behind-the-meter generation is netted for the purpose of reporting Network Load?	
20	Yes. A registered IM Resource should be added back and included in Network Load even if it is behind the retail meter.
22	No. Integrated Marketplace registration should not determine whether netting is allowed against gross load.
0	No Response

Wholesale: Market Registration	
Should Integrated Marketplace Resource registration determine whether wholesale behind-the-meter generation is netted for the purposes of reporting Network Load?	
13	Yes. A registered Resource should be added back and included in Network Load, even if it is behind the wholesale meter.
24	No. Integrated Marketplace registration should not determine whether netting is allowed.
5	No Response

RETAIL: MARKET REGISTRATION



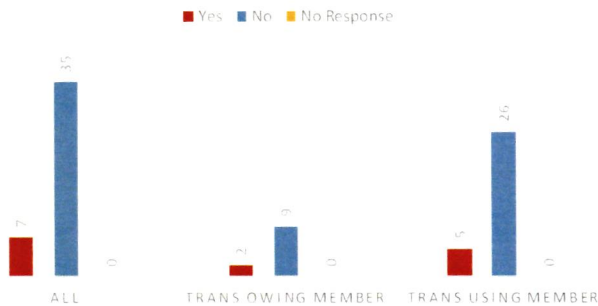
WHOLESALE: MARKET REGISTRATION



RETAIL & WHOLESALE PURPA-QUALIFYING FACILITIES

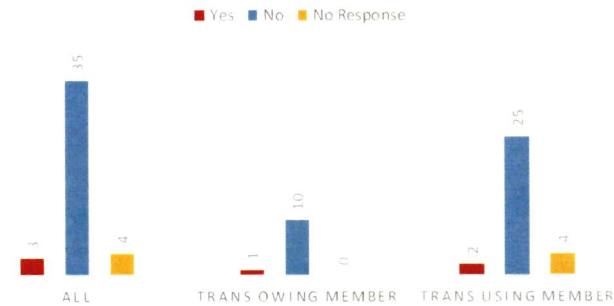
Retail: PURPA-Qualifying Facility	
Should PURPA QF status determine whether retail behind-the-meter generation should be netted for the purposes of reporting Network Load?	
7	Yes. Netting should be allowed for generation with PURPA qualifying facility status.
35	No. PURPA qualifying facility status should not determine whether netting is allowed.
0	No Response

RETAIL: PURPA-QUALIFYING
FACILITY



Wholesale: PURPA Qualifying Facility	
Should PURPA QF status determine whether wholesale behind-the-meter generation is netted for the purposes of reporting Network Load?	
3	Yes. Netting should be allowed for generation with PURPA qualifying facility status.
35	No. PURPA qualifying facility status should not determine whether netting is allowed.
4	No Response

WHOLESALE: PURPA QUALIFYING
FACILITY

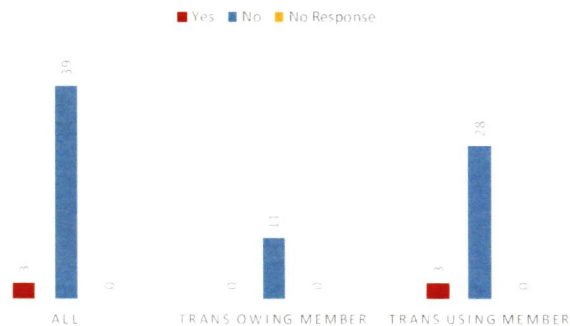


RETAIL & WHOLESALE FUEL & GENERATOR TYPE

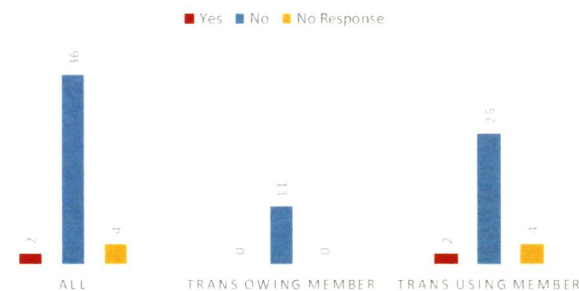
Retail: Fuel and Generator Type	
Should the type of generation and/or fuel used for the retail behind-the-meter generation determine whether netting is allowed?	
3	Yes. Certain fuel and/or generator types may be netted.
39	No. Fuel and/or generator type should not determine whether netting is allowed.
0	No Response

Wholesale: Fuel and/or Generator Type	
Should the type of generation and/or fuel used for the wholesale behind-the-meter generation determine whether netting is allowed?	
2	Yes. Certain fuel and/or generator types may be netted.
36	No. Fuel and/or generator type should not determine whether netting is allowed.
4	No Response

RETAIL: FUEL AND GENERATOR TYPE



WHOLESALE: FUEL AND/OR
GENERATOR TYPE



RETAIL & WHOLESALE SIZE

Retail: Size	
Should the size (kW) of the retail behind-the-meter generation determine whether netting is allowed?	
24	Yes. Generation less than the amount specified below (KW or MW) should be allowed to be netted.
18	No. The size of the generator should not determine whether netting is allowed.
0	No Response

Wholesale: Size	
Should the size (kW or MW) of the wholesale behind-the-meter generation determine whether netting is allowed?	
13	Yes. Generation less than the amount specified below (KW or MW) should be allowed to be netted.
25	No. The size of the generator should not determine whether netting is allowed.
4	No Response

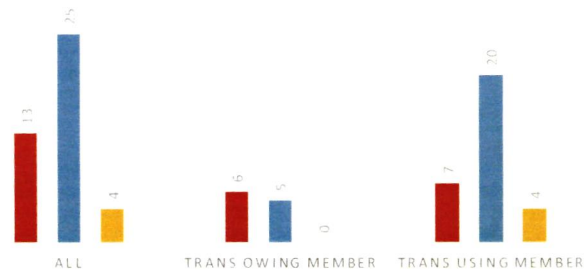
RETAIL: SIZE

■ Yes ■ No ■ No Response



WHOLESALE: SIZE

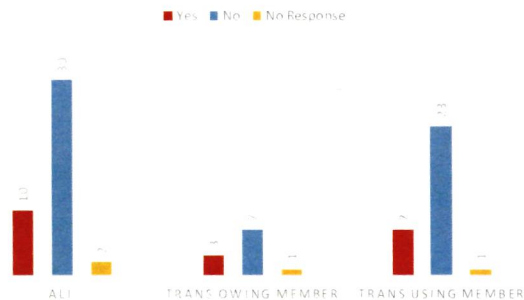
■ Yes ■ No ■ No Response



RETAIL & WHOLESALE AGGREGATE SIZE

Retail: Aggregate Size	
Assuming some level of behind-the-retail-meter netting is allowed, should there be a limitation based on the aggregate level (MW total) at a transmission service delivery point?	
10	Yes. Aggregate generation at a delivery point less than the amount specified below should be allowed to be netted.
30	No. The aggregate level of behind-the-meter generation at a transmission delivery point should not determine whether netting is allowed.
2	No Response

RETAIL: AGGREGATE SIZE



Wholesale: Aggregate Size	
Assuming some level of behind-the-wholesale-meter netting is allowed, should there be a limitation based on the aggregate level (MW total) at a transmission service delivery point?	
13	Yes. Aggregate generation at a delivery point less than an amount specified below should be allowed to be netted.
25	No. The aggregate level of behind-the-meter generation at a transmission delivery point should not determine whether netting is allowed.
4	No Response

WHOLESALE: AGGREGATE SIZE

